also to investigate the possible relation between obesity and other co-morbid cardiovascular risk factors.

Methods: The current study is a prospective descriptive study included 44 children with exogenous obesity aged from 4 to 16 years with a mean of 8.54 ± 2.4 years in addition to a healthy 35 children as a control group. All study groups underwent clinical examination, lipid profile in addition to meticulous echocardiography.

Results: Our results revealed that blood pressure was comparable in both groups and mean serum triglyceride level (though in the normal level) was significantly higher in the obese group with $P = 0.035$. Also left ventricular wall thickness, mass and mass index were significantly higher in obese group compared to normal weight group with P value 0.001, 0.045 and 0.035, respectively. Myocardial systolic function was comparable in both groups but diastolic function presented by isovolumetric relaxation time and E/A was significantly different in favor for the control group. We also observed a significant positive linear relationship between body mass index and both left ventricular thickness and left ventricular mass. However by correlating cardiac dimension with the lipid profile no significant relation could be elicited.

Conclusions: Our data showed that obesity in the absence of dyslipidemia and hypertension (as co-morbid cardiovascular risk factors) is associated with increased left ventricular wall thickness and mass also it is a risk factor for left ventricle diastolic dysfunction.

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Adiponectin serum level among children with nephrotic syndrome in relation to right ventricular functions

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Objective: Adiponectin (ADPN), a recently discovered protein hormone, is exclusively expressed on and secreted from adipocyte. ADPN is a particularly interesting compound because it may have a protective influence on the cardiovascular system. This study was a prospective hospital based study aiming to evaluate ADPN serum level among children with nephrotic syndrome (NS), right ventricular functions by echocardiography and finding any correlation between ADPN as a protective hormone and right ventricular functions.

Patients and methods: The study included 47 patients (28 boys and 19 girls) with steroid responsive nephrotic syndrome (SRNS). Cases included two groups: Group A – included 25 patients with SRNS in relapse. Group B – included 22 patients with SRNS in remission for periods ranging from 3 to 9 months and with no steroid therapy. In addition to control group which included 28 children with matched age and sex.

Methods: A thorough history and full clinical examinations and echocardiography measuring right and left ventricular wall functions and other abnormalities if present were done. Blood samples were collected for measuring serum levels of total cholesterol, triglycerides, high density lipoprotein (HDL), low density lipoprotein (LDL), very low density lipoprotein (VLDL) by enzymatic colorimetric kits, in addition to ADPN by ELISA method.

Results: Serum ADPN level was significantly higher in patients with SRNS in relapse (33.4 ± 15.60 μg/ml) in comparison with patients with SRNS in remission (12.54 ± 8.76 μg/ml) and with control group (10.54 ± 6.43 μg/ml) with P value <0.001 for both, we found a significant decrease in right ventricular ejection fraction (RVEF %) in patients with SRNS in relapse (57.9 ± 4.5) in comparison to cases with SRNS in remission and control group (75.2 ± 3.1 and 76.56 ± 3.3), respectively.

Conclusions: During relapse of SRNS, ADPN serum level is higher than its level in SRNS in remission and also, right ventricular strain occurs in relapsed SRNS may be due to haemodynamic overload. Good management of NS with wide scope of investigations aiming for detection and management of thrombolic and cardiovascular complications of NS is highly recommended.

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Immediate and ten years long term results of a new balloon mitral valvuloplasty technique

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Background: Percutaneous balloon mitral valvuloplasty (PBMV) is the standard non-surgical treatment of rheumatic mitral stenosis (MS). The success of PBMV depends on achieving higher mitral valve area (MVA) with commissural splitting. The direction of major force is an important determinant of PBMV outcome. Single balloon direct the major force toward the leaflet while double balloon technique direct the force toward the commissures.

Objectives: To test the hypothesis that stepwise dilation of mitral valve using single followed by double balloons (Bonhoeffer multi-track system) inflations would gradually apply bidirectional forces and hence yield better outcome.

Methods: Six hundred and twenty-four patients with symptomatic MS were prospectively randomized to either standard multi-track PBMV (group I: 381 pts had simultaneous inflation of two equal size balloons), or new modified technique (group II: 243 pts had stepwise dilation using single 20 mm balloon inflation followed by double balloon inflation, i.e., 20 + 16, 18, or 20 mm to body surface area).

Results: Both groups had comparable basic data: mean age (19.03 ± 6.44 vs. 18.62 ± 6.24 years), male/female ratio (70/311 vs. 32/211), echo score (6.18 ± 1.29 vs. 6.32 ± 1.38), MVA (0.82 ± 0.18 vs. 0.84 ± 0.12 cm^2), and trans-mitral gradient (26.94 ± 6.19 vs. 27.41 ± 7.13 mmHg). They had similar success rates (96.8% vs. 95.9%). Modi-